Desirements vs. Requirements

27 Oct 00

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Action Item (PF-00-07-05)

Form a team to develop a requirements process that includes:

- Spiral Development
- Product Centers, Industries
- Process Development Facility
- Operational Testers Involved
- Use CONOPS as requirements document
- Business Network Battle Lab for Requirements
- Lack of Commonality
- Review requirements process from big "R" to little "r"
- Requirements Flexibility
- Understand & utilize the evolution of commercial technology
- Government Technology Demos
- Where is DT/OT at "dot.com' environment
- Begin acquisition process with CONOPS Vs ORD
- Cross-functional team

- **Task Leader**: ESC/CX

Desirements vs. Requirements Team

Mr. David La Rochelle	ESC/CX
Mr. Frank Cardile	ACS Defense
Mr. Bill Flanagan	CSC
Mr. Douglas Johnson	Sun Microsystems
Ms Ann Ward	Sun Microsystems
Mr. Ken Jennings	Northrop Grumman ESSS
Mr. Carl Nordstrom	ESC/CX
Mr. Tom Powis	ESC/CXP
Major Len Mitchner	AC2ISRC/A5
Mr. Richard Haus	AC2ISRC/A5
Mr. Dave Sorensen	AC2ISRC/A5
Mr. Patrick Dagle	ESC/CXP

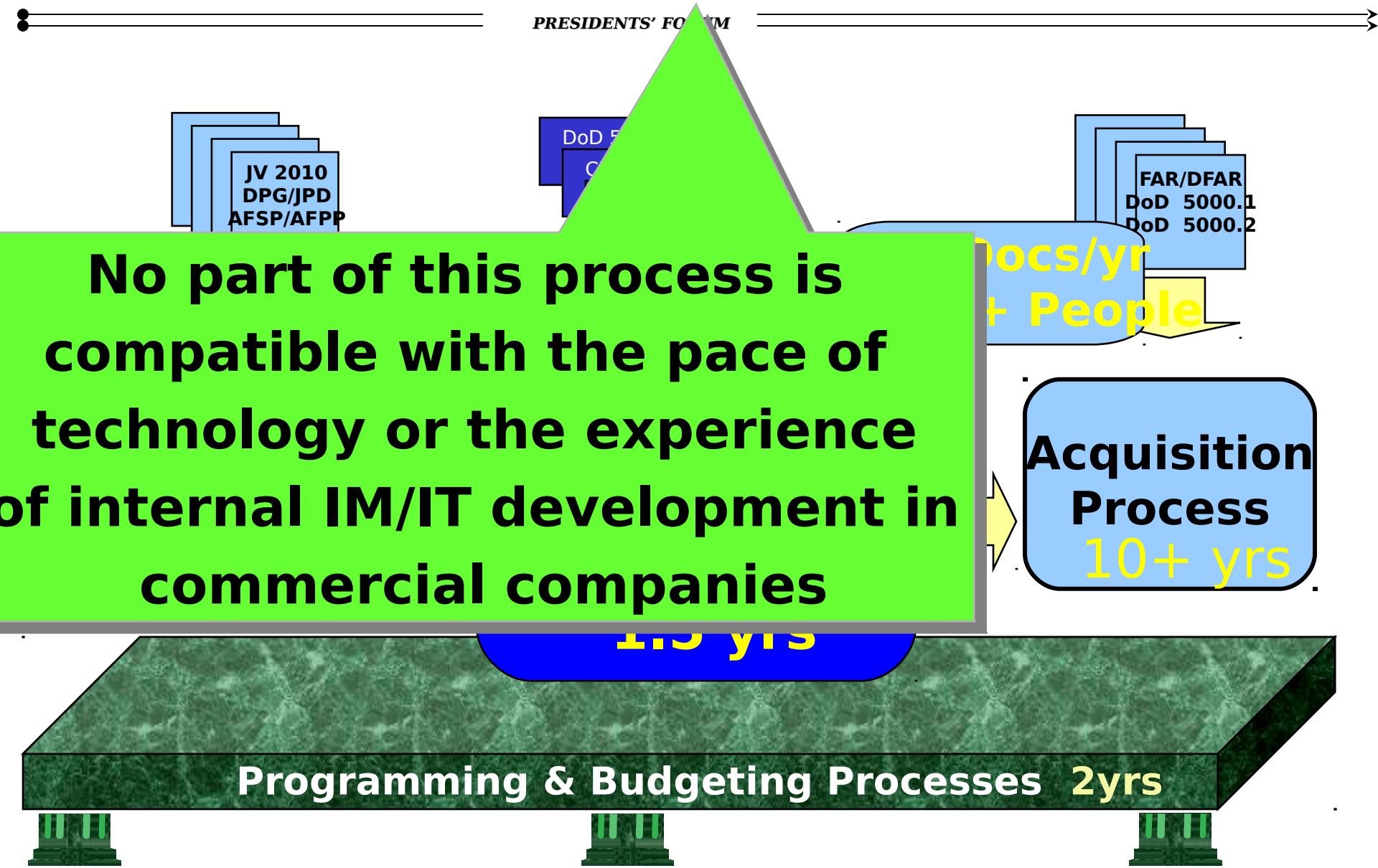
The Problem

- Requirements generation too slow
- Funding process not responsive to take advantage of IT technology
- Acquisition process too slow

Recent Requirements Activities

- SAB C2 Requirements Process
- AC2ISRC Enterprise Integration Management
- AC2ISRC Requirements Process Re-look
- SAF/AQ Acquisition Agility
- Desirements vs. Requirements Working Group

The Current Process

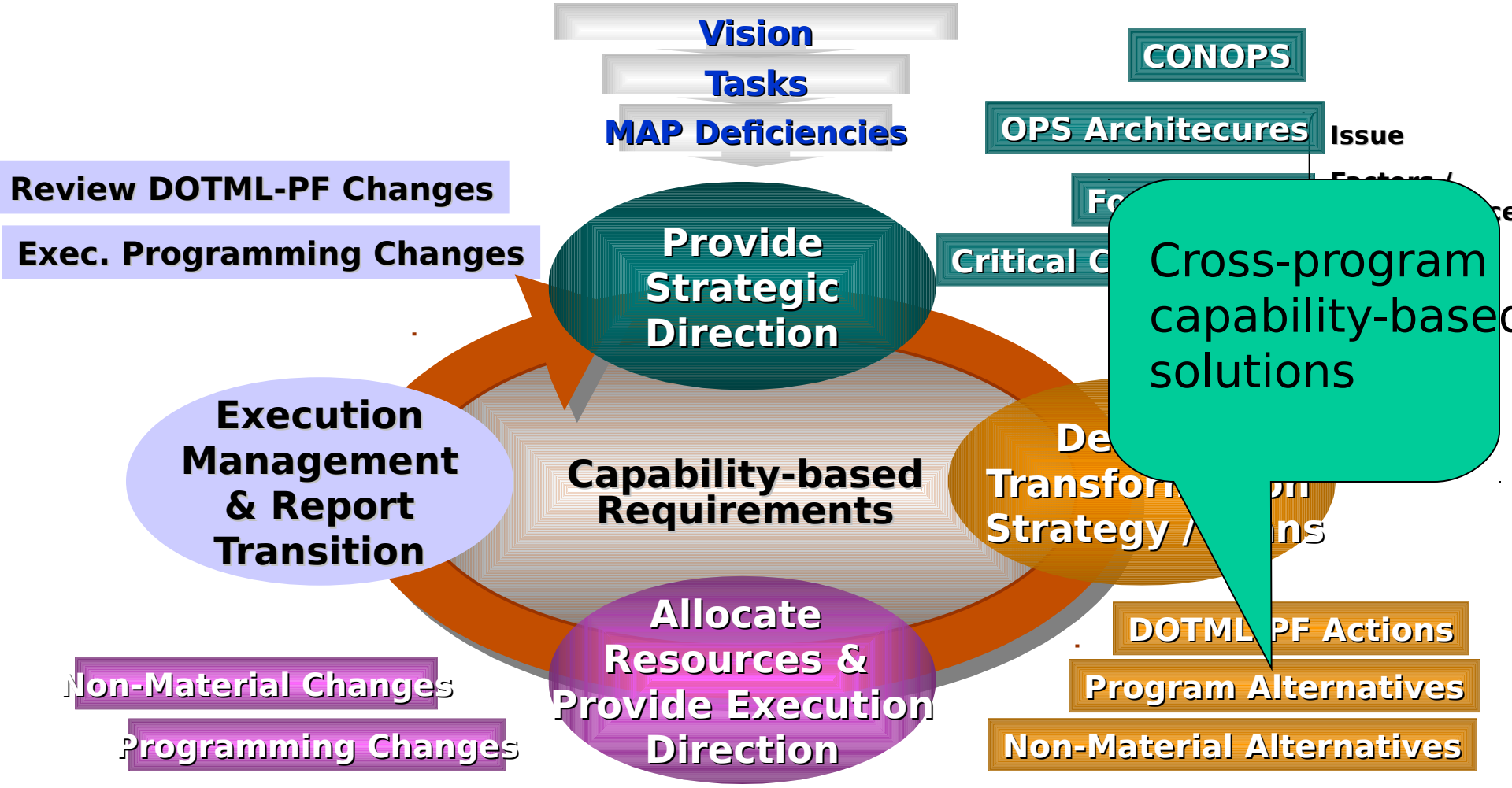


Summary of Key Recommendations to SAB

- The C2 concept of operations, mapped into desired operational capabilities, should drive C2 development
- Redefine Program Elements more broadly
- Establish Pentagon C2 infrastructure owner
- All fielded developments will satisfy the infrastructure policies and standards
- Replace the "Predictive Banking" process for IT capabilities -- execution year funding flexibility
- Specify ORD and MNS at high level
- Take steps that will make short-term progress toward the Global Grid and the JBI

C2ISRC Enterprise Integration Management Summary

PRESIDENTS' FORUM



Cross-Program Alternatives

Define Operational Framework

- C2ISR Campaign Plan/MAPs
- C2ISR Critical Capabilities
- CONOPS
- Ops Architectures

Conduct Analysis of Roadmap Alternatives (ARA)

- Systems Architectures
- Program Profiles
- Technology Insertion
- Commercial IT Technology
- C2ISR QAPR Decisions

Develop Cross-Program Integrated Acquisition Roadmaps

- Alternatives to meet FA capabilities
- Disconnects
- Issues
- Duplications

EIM Re-look and Acquisition Agility Summary

- Delivering C2ISR capability requires all products be linked
  - CONOPs & Concept of use
  - ORD, CRD, PE, PMD
  - Strategic Plans, MAPs, Roadmaps, C4ISPs
- MAJCOM/Air Staff involvement early and often
- Implementing Capstone PMD directing cross-program roadmaps
- Restructuring C2ISR PEs
- Funding for cross-program integration and technology transition
- Corporate Panel restructure for C2ISR

Requirements Panel Findings

PRESIDENTS' FORUM

- Culture change hardest thing to do *(from development community, users)*
- Involve industry earlier on requirements and desirements development
- Tell industry what we want and not how to do it (in high level ORD/CONOPS/Ops Architecture)
- Expedite reprogramming of execution year funding for today's technology to meet immediate warfighter C2 requirements
- Make DoD business processes more flexible to allow application of commercial technology

Requirements Panel Findings

- Place enterprise manager in control
- ESC survey of industry to identify interoperable capabilities available using commercial systems capable of rapid evolution
  - What exists now to meet requirements
  - What meets most requirements, but needs more work
  - If new start is required because nothing exists now
- Provide an environment for early exchange of requirements and potential solutions (eg. C2 Portal, HERBB, Network Applications Lab, etc...)

Recommendations

- Support the initiatives of previous groups
- Work with industry to identify business process changes that would facilitate transition IT technologies
- Provide industry early visibility in requirements and desirements (h ORD/CONOPS/Ops Architecture)
- Keep a Survey of Industry solution for the user and development comm ity
  - What exists now to meet requirements
  - What meets most requirements, but nee s more work

C2 Portal Opportunity

The "Future" P

Restructured PE's, C2 Infrastructure Owner, Execution Year Funding Flexibility for transition of IT Technology, Consolidated Capability-Based POM (EIM/ARA)

IT Solutions Catalog, Capabilities-Based Solutions, Use of IT Tools (Portal), Spiral Development, Build to IT Infrastructure Policies and Standards (JBI)

DoD 5000.2R
CJCSI 3170.01
AFPD 10-6
AFI 10-601

P ning P ess

Requirements Process (MNS,ORD,CRD)

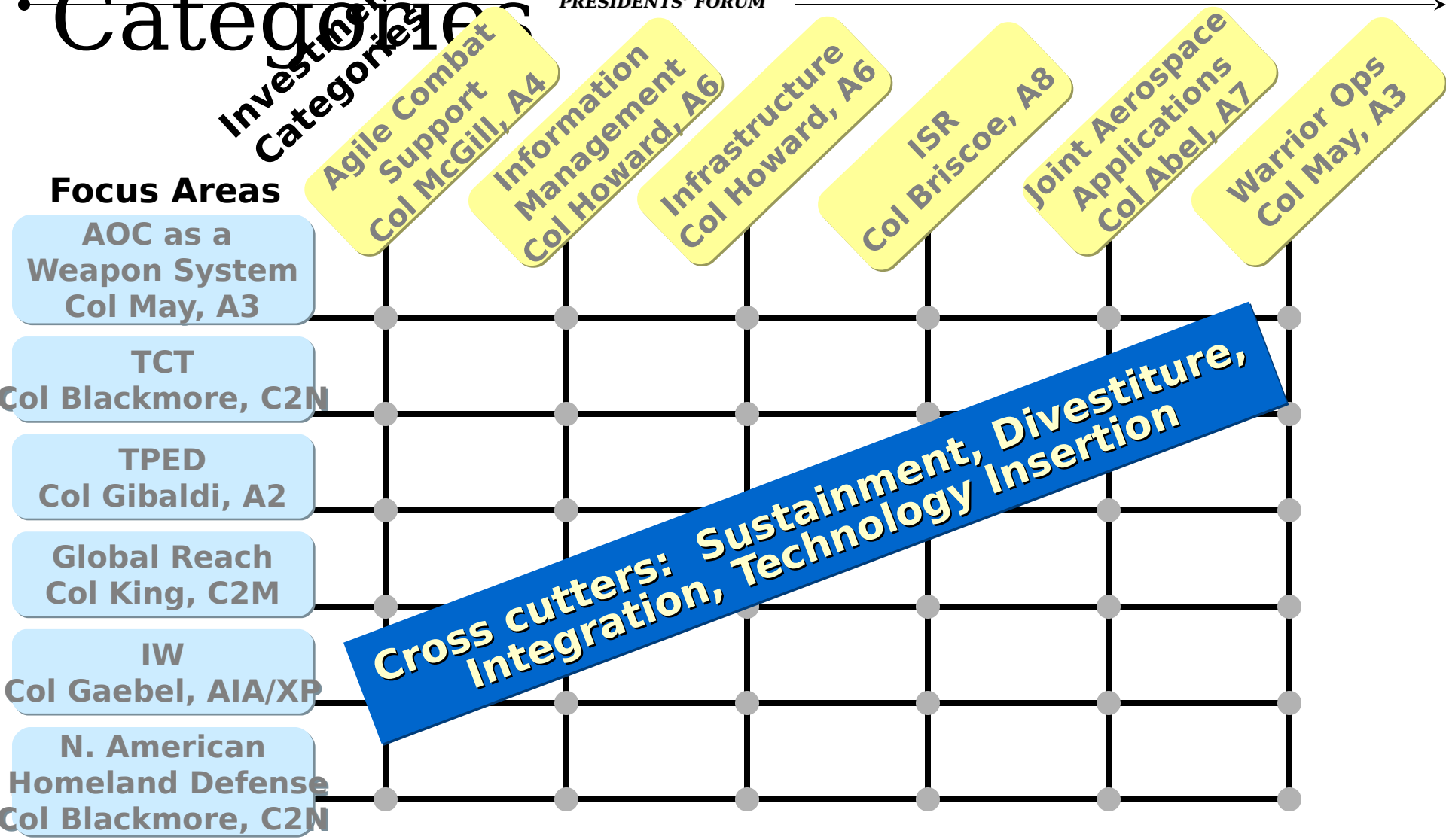
Acquisition Process

Programming & Budget

CONOPS, Architectures, Desired Capabilities, High Level MNS & ORD's, Early Industry Visibility

Backups

Focus Areas & Investment Categories

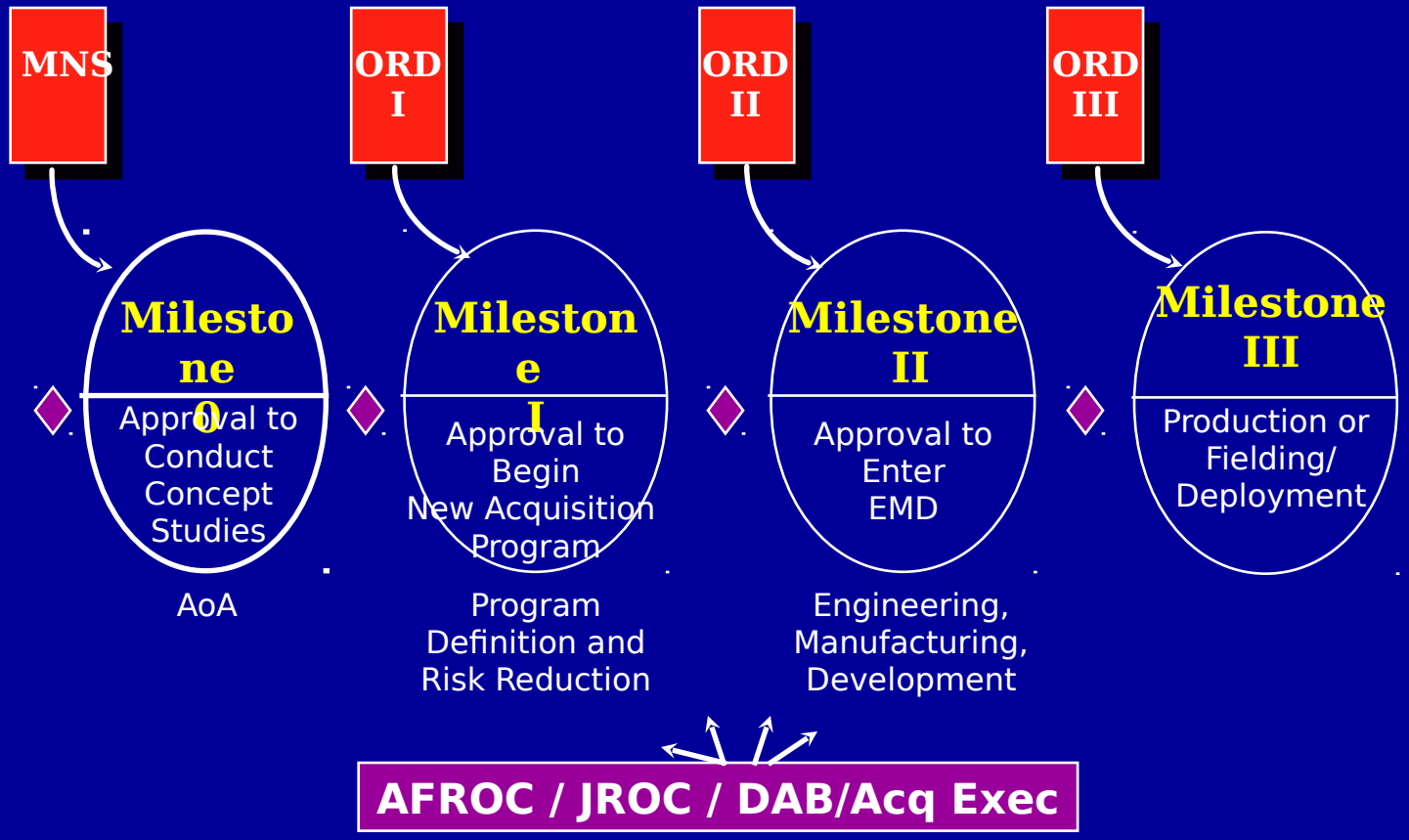


C2ISR Campaign 2000 Lessons Learned

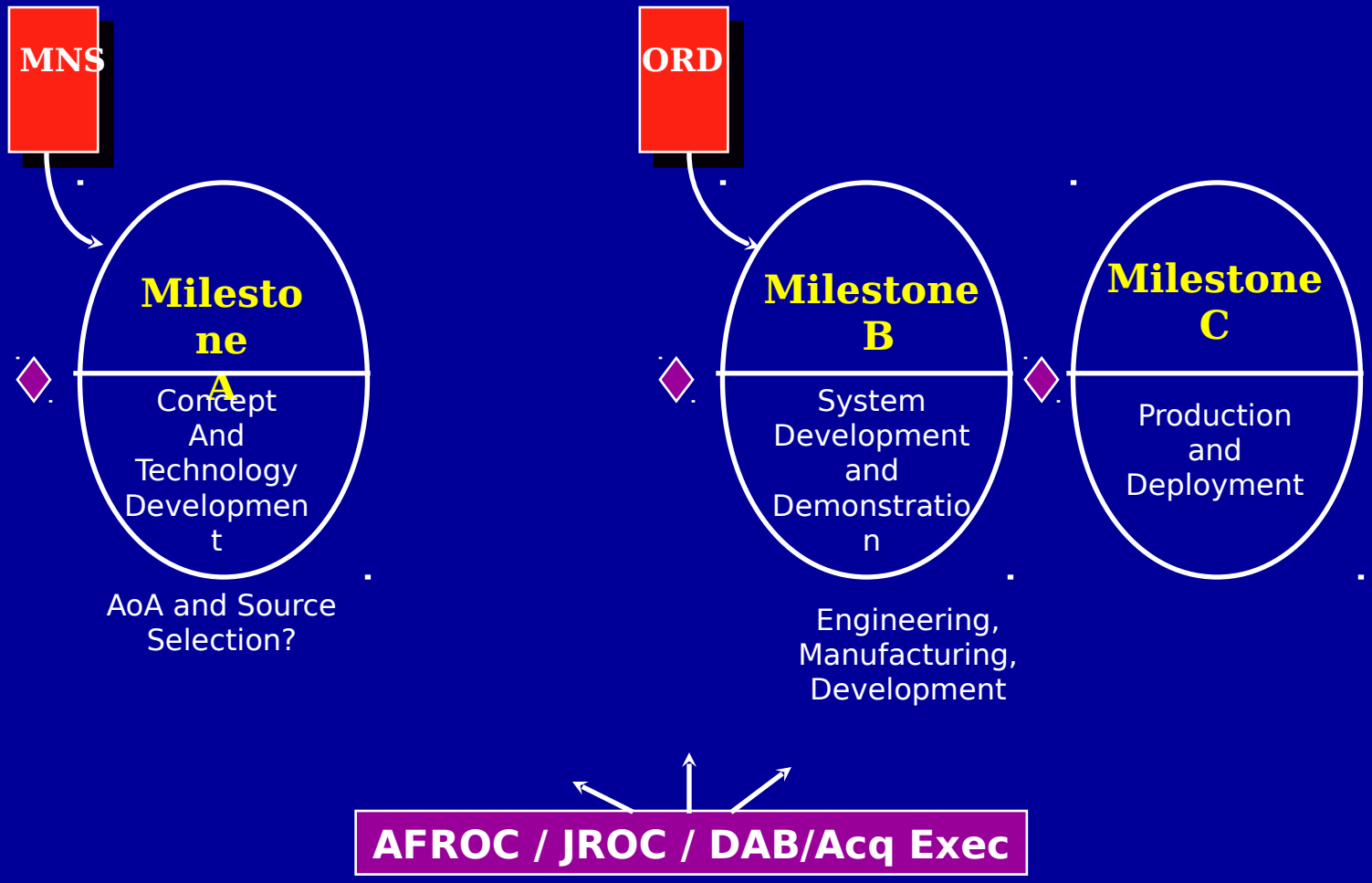
- More Air Staff & Joint involvement needed
  - Need to understand their issues
- Early AF Corporate guidance a must
  - What is right mix of sustainment and modernization
  - Need early guidance on divestiture options
- End States & Objectives need to be capability based and measurable
- Strategy Statements need narrower focus
- Technology insertion needs attention

Classic Milestones

PRESIDENTS' FORUM



New Milestones



The Weapon Systems ORD

- Documents requirements for many systems related to a certain mission or capability (i.e. F-15, AOC)
- Same function as an aircraft / weapon system ORD
- Allows proper funding for:
  - Studies and research of many systems
  - The necessary systems engineering to design the integration, interoperability, and compatibility among many systems.
- *Enables management (modernization) of C2 and ISR systems as Weapon Systems (AC2ISRC Charter)*

C2ISR Enterprise Challenges

- SAF/AQI is proposing to CSAF and Corona Fall a restructuring of C2&ISR PEs to a manageable number - "12-18"

- The SAF/AQI team liked the AC2ISRC idea of Overarching ORDs –
  - Weapon System ORDS
  - Cross-cutting Systems ORDs

- "12-18" ORDs to match the PEs

Spiral Development Organizational Structure

Guidance & Direction

C2ISR Council

C2ISR Board

Issue Resolution

Integration Task Force

Standing Spiral Development IPTs	**Joint Aerospace Applications** **Information Management** **Infrastructure** **ISR Sensors & Platforms** **Agile Combat Support**
Spiral Development Locations	**TACC** **AFSPACE AOC** **AFRL….Others** **AOC-X** **BattleLabs** **AFIWC**

EIM Challenges

- Realignment will not be easy
  - Big culture/authority changes
  - Component groupings (e.g., PE's) are TBD
- Paying for integration – not reflected in current acquisition structure/process
- Harmonizing Evolutionary Acquisition with classic DoD 5000 series activities
- Expanding the envelope
  - Integrating with AF CIO & AF/SC (formerly AFCIC)
  - Joint level
  - MAJCOM level